



March 11, 2003

The purpose of these replacement pages is to reflect the changes associated with the comparison of the analytical data to the proposed RFCA Wildlife Refuge Worker action levels.

For the document entitled,  
"Characterization Data Summary IHSS Group 900-4&5,"  
issued in December 2002, please make the following page  
replacements:

1. Replace the Table of Contents with the one provided herein.
2. Replace page 1 in the former issue with the one provided.
3. Append the former issue by adding the **Appendix B** provided at the end.

If you have any questions, please contact either Marla Broussard at x6007 or Karen Griggs at x4743.  
Thank you.



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## 1.0 INTRODUCTION

This data summary report summarizes characterization activities conducted at Individual Hazardous Substance Site (IHSS) Group 900-4&5 at the Rocky Flats Environmental Technology Site (RFETS) in Golden, Colorado. Characterization activities were planned and executed in accordance with the Industrial Area Sampling and Analysis Plan (IASAP) (DOE 2001) and IASAP Addendum #IA-02-02 (DOE 2002a).

IHSS Group 900-4&5 consists of Potential Area of Concern (PAC) 900-175, S&W Building 980 Contractor Storage Facility and PAC-1308, Gasoline Spill Outside of Building 980. PAC-1308 received a No Further Action (NFA) determination on February 14, 2002 and is consequently not included in this report. The location of PAC 900-175 is shown on Figure 1.

## 2.0 SITE CHARACTERIZATION

IHSS Group 900-4&5 information consists of historical knowledge (DOE 1992-2001) and six additional sampling locations with specifications as described in IASAP Addendum #IA-02-02 (DOE 2002a). The sampling specifications for the characterization samples collected are listed in Table 1. The location of these samples and analytical results greater than background mean plus two standard deviations or reporting limits are presented in Figure 2 and Table 2. A summary of the analytical results is presented in Table 3. Deviations from planned sampling specifications are presented in Table 4. A summary of validated analytical records is presented in Table 5. The raw data are presented as Appendix A.

Analytical results indicate that all contaminant concentrations are less than RFCA Tier II action levels (ALs) and the proposed RFCA Wildlife Refuge Worker (WRW) ALs. A comparison of the analytical results to the proposed RFCA WRW ALs is presented in Appendix B.

Analytical results indicate that No Further Accelerated Action (NFAA) for IHSS Group 900-4&5 is warranted for the following reasons:

- All contaminant concentrations are less than WRW ALs.
- All contaminant concentrations are less than Ecological Receptor ALs.
- There is no identified potential to exceed surface water standards at a POC from this IHSS Group.

Approval of this Data Summary Report constitutes regulatory agency concurrence that this IHSS Group is an NFAA. This information and NFAA determination will be documented in the FY03 Historical Release Report (HRR).

**APPENDIX B**

**IHSS GROUP 900-4&5**

**WRW ACTION LEVEL COMPARISON TABLE**

## IHSS Group 900-4&amp;5 WRW Action Level Comparison

IHSS/PAC/ UBC Site	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Background Mean+2SD	Unit
900-175	CK43-001	Benzo(a)anthracene	0	0.5	100	40	34900	—	NA	ug/kg
900-175	CK43-001	Benzo(a)pyrene	0	0.5	140	97	3490	—	NA	ug/kg
900-175	CK43-001	Benzo(b)fluoranthene	0	0.5	130	100	34900	—	NA	ug/kg
900-175	CK43-001	Benzo(k)Fluoranthene	0	0.5	150	96	349000	—	NA	ug/kg
900-175	CK43-001	Bis(2-ethylhexyl)phthalate	0	0.5	82	71	1970000	—	NA	ug/kg
900-175	CK43-001	Chromium (total)	0	0.5	106	0.36	NA	—	16.99	mg/kg
900-175	CK43-001	Chrysene	0	0.5	150	55	3490000	—	NA	ug/kg
900-175	CK43-001	Copper	0	0.5	31.9	0.19	40900	—	18.06	mg/kg
900-175	CK43-001	Fluoranthene	0	0.5	330	87	27200000	—	NA	ug/kg
900-175	CK43-001	Indeno(1,2,3-cd)pyrene	0	0.5	73	49	34900	—	NA	ug/kg
900-175	CK43-001	Nickel	0	0.5	67.9	0.44	20400	—	14.91	mg/kg
900-175	CK43-001	Pyrene	0	0.5	290	41	22100000	—	NA	ug/kg
900-175	CK43-001	Zinc	0	0.5	171	0.59	307000	—	73.76	mg/kg
900-175	CK43-001	Benzo(a)anthracene	0	0.5	180	41	34900	—	NA	ug/kg
900-175	CK43-001	Benzo(a)pyrene	0	0.5	230	99	3490	—	NA	ug/kg
900-175	CK43-001	Benzo(b)fluoranthene	0	0.5	240	110	34900	—	NA	ug/kg
900-175	CK43-001	Benzo(k)Fluoranthene	0	0.5	230	98	349000	—	NA	ug/kg
900-175	CK43-001	Bis(2-ethylhexyl)phthalate	0	0.5	75	73	1970000	—	NA	ug/kg
900-175	CK43-001	Chromium (total)	0	0.5	40.3	0.35	NA	—	16.99	mg/kg
900-175	CK43-001	Chrysene	0	0.5	260	56	3490000	—	NA	ug/kg
900-175	CK43-001	Copper	0	0.5	28.1	0.18	40900	—	18.06	mg/kg
900-175	CK43-001	Dimethyl phthalate	0	0.5	110	89	1000000000	—	NA	ug/kg
900-175	CK43-001	Fluoranthene	0	0.5	550	88	27200000	—	NA	ug/kg
900-175	CK43-001	Indeno(1,2,3-cd)pyrene	0	0.5	150	50	34900	—	NA	ug/kg
900-175	CK43-001	Nickel	0	0.5	30.5	0.43	20400	—	14.91	mg/kg
900-175	CK43-001	Pyrene	0	0.5	470	42	22100000	—	NA	ug/kg
900-175	CK43-001	Zinc	0	0.5	96.9	0.57	307000	—	73.76	mg/kg
900-175	CK43-001	Benzo(a)anthracene	0	0.5	210	40	34900	—	NA	ug/kg
900-175	CK43-001	Benzo(a)pyrene	0	0.5	240	96	3490	—	NA	ug/kg

IHSS Group 900-4&5 WRW Action Level Comparison

IHSS/PAC/ UBC Site	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Background Mean+2SD	Unit
900-175	CK43-001	Benzo(b)fluoranthene	0	0.5	230	100	34900	—	NA	ug/kg
900-175	CK43-001	Benzo (K) Fluoranthene	0	0.5	240	95	349000	—	NA	ug/kg
900-175	CK43-001	Bis(2-ethylhexyl)phthalate	0	0.5	310	70	1970000	—	NA	ug/kg
900-175	CK43-001	Chromium (total)	0	0.5	102	0.36	NA	—	16.99	mg/kg
900-175	CK43-001	Chrysene	0	0.5	260	54	3490000	—	NA	ug/kg
900-175	CK43-001	Copper	0	0.5	74.4	0.18	40900	—	18.06	mg/kg
900-175	CK43-001	Dibenz(a,h)anthracene	0	0.5	64	48	3490	—	NA	ug/kg
900-175	CK43-001	Dimethly phthalate	0	0.5	320	86	1000000000	—	NA	ug/kg
900-175	CK43-001	Fluoranthene	0	0.5	540	85	27200000	—	NA	ug/kg
900-175	CK43-001	Indeno(1,2,3-cd)pyrene	0	0.5	160	49	34900	—	NA	ug/kg
900-175	CK43-001	Nickel	0	0.5	69.3	0.44	20400	—	14.91	mg/kg
900-175	CK43-001	Pyrene	0	0.5	500	41	22100000	—	NA	ug/kg
900-175	CK43-001	Zinc	0	0.5	172	0.58	307000	—	73.76	mg/kg
900-175	CK43-001	Benzo(a)anthracene	0	0.5	44	40	34900	—	NA	ug/kg
900-175	CK43-001	Bis(2-ethylhexyl)phthalate	0	0.5	9700	140	1970000	—	NA	ug/kg
900-175	CK43-001	Chromium (total)	0	0.5	34.4	0.35	NA	—	16.99	mg/kg
900-175	CK43-001	Chrysene	0	0.5	58	54	3490000	—	NA	ug/kg
900-175	CK43-001	Copper	0	0.5	19.5	0.18	40900	—	18.06	mg/kg
900-175	CK43-001	Fluoranthene	0	0.5	120	86	27200000	—	NA	ug/kg
900-175	CK43-001	Nickel	0	0.5	20.2	0.43	20400	—	14.91	mg/kg
900-175	CK43-001	Pyrene	0	0.5	100	41	22100000	—	NA	ug/kg
900-175	CK43-001	Pyrene	0	0.5	100	82	22100000	—	NA	ug/kg
900-175	CK43-001	Zinc	0	0.5	80.6	0.57	307000	—	73.76	mg/kg
900-175	CK43-001	Benzo(a)anthracene	0	0.5	310	39	34900	—	NA	ug/kg
900-175	CK43-001	Benzo(a)pyrene	0	0.5	270	95	3490	—	NA	ug/kg
900-175	CK43-001	Benzo(b)fluoranthene	0	0.5	240	100	34900	—	NA	ug/kg
900-175	CK43-001	Benzo (K) Fluoranthene	0	0.5	290	94	349000	—	NA	ug/kg
900-175	CK43-001	Bis(2-ethylhexyl)phthalate	0	0.5	100	70	1970000	—	NA	ug/kg
900-175	CK43-001	Chromium (total)	0	0.5	114	0.35	NA	—	16.99	mg/kg

### IHSS Group 900-4&5 WRW Action Level Comparison

IHSS/PAC/ UBC Site	Location	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	RL/DL	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Background Mean+2SD	Unit
900-175	CK43-001	Chrysene	0	0.5	390	54	3490000	—	NA	ug/kg
900-175	CK43-001	Copper	0	0.5	36.6	0.18	40900	—	18.06	mg/kg
900-175	CK43-001	Fluoranthene	0	0.5	690	85	27200000	—	NA	ug/kg
900-175	CK43-001	Indeno(1,2,3-cd)pyrene	0	0.5	150	49	34900	—	NA	ug/kg
900-175	CK43-001	Iron	0	0.5	18900	1.6	307000	—	18037	mg/kg
900-175	CK43-001	Lithium	0	0.5	11.6	0.24	20400	—	11.55	mg/kg
900-175	CK43-001	Nickel	0	0.5	69.7	0.43	20400	—	14.91	mg/kg
900-175	CK43-001	Pyrene	0	0.5	690	40	22100000	—	NA	ug/kg
900-175	CK43-001	Zinc	0	0.5	80.5	0.58	307000	—	73.76	mg/kg
900-175	CK43-001	Benzo(a)anthracene	0	0.5	160	41	34900	—	NA	ug/kg
900-175	CK43-001	Benzo(a)pyrene	0	0.5	190	98	3490	—	NA	ug/kg
900-175	CK43-001	Benzo(b)fluoranthene	0	0.5	170	100	34900	—	NA	ug/kg
900-175	CK43-001	Benzo (K) Fluoranthene	0	0.5	200	97	349000	—	NA	ug/kg
900-175	CK43-001	Bis(2-ethylhexyl)phthalate	0	0.5	1600	71	1970000	—	NA	ug/kg
900-175	CK43-001	Chromium (total)	0	0.5	28.2	0.36	NA	—	16.99	mg/kg
900-175	CK43-001	Chrysene	0	0.5	210	55	3490000	—	NA	ug/kg
900-175	CK43-001	Copper	0	0.5	31.5	0.19	40900	—	18.06	mg/kg
900-175	CK43-001	Fluoranthene	0	0.5	440	87	27200000	—	NA	ug/kg
900-175	CK43-001	Indeno(1,2,3-cd)pyrene	0	0.5	110	50	34900	—	NA	ug/kg
900-175	CK43-001	Lithium	0	0.5	11.8	0.25	20400	—	11.55	mg/kg
900-175	CK43-001	Nickel	0	0.5	23.8	0.45	20400	—	14.91	mg/kg
900-175	CK43-001	Pyrene	0	0.5	450	42	22100000	—	NA	ug/kg
900-175	CK43-001	Strontium	0	0.5	63.2	0.016	613000	—	48.94	mg/kg

RL/DL – Reporting/Detection Limit  
SD – Standard Deviation